

Remarks/Arguments

5

Claim Rejections**Examiner:**

10 Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michiya (US 6,296,493) in view of Takashi et al. (US 4,408,814).

15 Michiya discloses an electrical connector for connecting first and second printed circuit boards, the connector comprising the basic instant claimed invention except for at least one conductive media having a plurality of insulating layers and a plurality of conductive layers, wherein each conductive layer is formed between two insulating layers.

20 Takashi et al. discloses an electrical connector comprising conductive media having a plurality of insulating layers and a plurality of conductive layers, wherein each conductive layer is formed between two insulating layers [see figure 1].

25

It would have been obvious to one having ordinary skill in the art at the time invention was made to modify the connector of Michiya to provide the design connector as taught by Takashi et al/ for the purpose of facilitating the reliable electric connection between two circuit boards [see abstract].

30

Response:

Claims 1 and 3-8 have been amended to better define the structure of the present invention. All new limitations
5 are fully supported in the specification (first paragraph of the "Detailed Description" section) and figures (5 and 7). No new material has been introduced.

As detailed in the "Amendments to the Claims" section
10 of this response, the claimed invention comprises a lower frame substantially surrounding a first hollow space (item 42 in Fig.7) for holding a lower portion of the conductive media and an upper frame substantially surrounding a second hollow space for holding an upper portion of the conductive
15 media (Second paragraph of the "Detailed Description"). Both the upper frame and the lower frame comprise a hook. When the conductive media is fixed into the first and second hollow spaces, the upper frame and the lower frame are connected to each other by pressing both frames to hook
20 the upper hook and the lower hook.

Figs.1 and 2 of Michiya define a very different structure than claimed by the present invention. Without limiting the present invention and merely suggested as an example,
25 if the shielding case 105 is considered an upper frame (having a hook) and the circuit board 101 is considered a lower frame (which, while unstated, the hook apparently attaches to as shown in Fig.1), then the frame portions do not comprise the claimed hollow spaces for holding the conductive media.
30 Instead, Michiya utilizes a metal clip 14 to hold the conductive media to the LCD panel. If the metal clip is to be considered the upper frame, it is unclear where the

corresponding lower frame having a hollow space substantially surrounding and holding the lower end of the conductive media is and how the clip and the corresponding lower frame portion are hooked together. Additionally, the disposition of the connecting system of Michiya is also limited to a peripheral edge of a circuit board and reducing the height of the prior art connector is strictly limited by at least the thickness of the back-light panel 104.

10 In contrast, the present invention's use of a hook-together, two-piece frame having hollows for holding the conductive media in place removes the peripheral edge limitation completely and reduces the height of the connector (and thus the distance separating the two boards) to the height of the combined upper and lower frames, making it more applicable in electronic devices having limited space.

20 The goal of the present invention is to provide a reliable, inexpensive, and reduced-size connector to be used for electrically connecting two circuit boards. This goal is achieved through the use of plastic upper and lower hook-together frames having internal hollows for holding the conductive media in electrical contact with the two circuit boards. As such, the Applicant believes that the present invention as currently claimed is structurally and functionally different from the cited prior art and represents a new and useful device. Therefore, the Applicant respectfully requests reconsideration and allowance of claims 1-15.

New Claims

5 The Applicant respectfully requests acceptance and
consideration of new claims 16-18. Claim 16 depends upon
amended claim 1 and includes the limitation of "at least
a portion of the first hollow space extends through
the lower frame such that a lower side of the lower
portion of the conductive media is exposed for direct
electrical connection between the conductive layers
10 and metal connections on the first board". This is
clearly supported in the second paragraph of the
"Detailed description" and Fig.7. No new material
has been introduced.

15 Independent claim 17 and claim 18 dependent
thereon includes a similar limitation. No new
material has been introduced.

20



Date:

4/8/2004

Winston Hsu, Patent Agent No.41,526

P.O. BOX 506

25 Merrifield, VA 22116

U.S.A.

e-mail: winstonhsu@naipo.com.tw

(Please contact me if you need a telephone communication and I will return
your call promptly.)

30